

What is claimed is:

1 1. A system for correcting links to resources in a network, comprising:
2 a link checking service unit associated with a first group of resources and configured
3 for determining if a location of a resource among the first group of resources has changed;
4 and
5 a link correction service unit configured for sending a request to the link checking
6 service to determine validity of a link, receiving a response indicating a status of the link,
7 and modifying a document containing the link based on the received response.

1 2. The system of claim 1, wherein said document is a World-Wide Web page,
2 and said link is a hypertext link.

1 3. The system of claim 1, wherein the link checking service unit sends a
2 response message containing a current location of said resource if the location of said
3 resource has changed, and the link correction service, in response to receiving the response
4 message changing a document containing the link to indicate the current location of the
5 resource.

1 4. A method of correcting a link in a document, comprising:
2 sending a request to a link checking service unit to check a status of a resource
3 corresponding to the link;
4 receiving a response to said request, the response containing an indication of a
5 changed location of the resource; and
6 changing the document based on the indication of the changed location of the
7 resource.

1 5. The method of claim 4, wherein the response further includes a link status
2 code indicating a status of the resource.

1 6. The method of claim 4, wherein the document is a World-Wide Web page
2 and the link is a hypertext link.

1 7. The method of claim 4, wherein the link includes a first uniform resource
2 locator (URL) and the indication of the changed location of the resource includes a second
3 URL, wherein the document is changing by changing the first URL in the link to the second
4 URL.

1 8. The method of claim 4, wherein the document is changed by automatically
2 deleting the link in the document if the response does not include a replacement link and
3 contains a link status code indicating that the link is invalid.

1 9. The method of claim 4, wherein said sending a request, receiving a response,
2 and changing the document are performed in a web server.

1 10. An apparatus for correcting a link in a document, comprising:
2 a document repository having stored therein one or more documents;
3 a corrected document repository having stored therein one or more corrected
4 documents;
5 a link correction service unit connected to the document repository and the corrected
6 document repository, and configured to parse a link from one of the documents in the
7 document repository, generate a request for checking the validity of the link, correct the link

8 in response to receipt of a response message containing a corrected link, and store a
9 corrected document having the corrected link in the corrected document repository.

1 11. The apparatus of claim 10, wherein the apparatus is part of a web server.

1 12. The apparatus of claim 10, wherein the link is a hypertext link containing a
2 uniform resource locator (URL) and the document is a web page.

1 13. An apparatus for correcting a link in a document, comprising:
2 means for sending a request to a link checking service unit to check a status of a
3 resource corresponding to the link;
4 means for receiving a response to said request, the response containing an indication
5 of a changed location of the resource; and
6 means for changing the document based on the indication of the changed location of
7 the resource.

1 14. A computer readable medium of instructions suitable for execution by a
2 computer, comprising:
3 program instructions for sending a request to a link checking service to check a
4 status of a resource corresponding to the link;
5 program instructions for receiving a response to said request, the response containing
6 an indication of a changed location of the resource; and
7 program instructions for changing the document based on the indication of the
8 changed location of the resource.

1 15. A method for determining a status of a link in a document, comprising:
2 receiving a request to determine the status of the link in the document, wherein the
3 link includes a location indicator of a resource;
4 detecting if the resource is present within a storage unit at a location indicated by the
5 location indicator;
6 determining if the resource is present at an alternate location if the resource is not
7 detected in the location indicated by the location indicator; and
8 returning an alternate location identifier indicating the alternate location of the
9 resource if the resource is determined to be present at the alternate location.

1 16. The method of claim 15, wherein the link is a hypertext link and the location
2 indicator of the resource is a uniform resource locator (URL).

1 17. The method of claim 16, wherein the resource is a web page.

1 18. The method of claim 16, further comprising returning a link status code
2 indicating whether the resource is present in the storage unit.

1 19. The method of claim 18, wherein the link status code indicates whether the
2 resource has been deleted from the storage unit.

1 20. The method of claim 15, wherein said determining if the resource is present
2 at an alternate location is performed by consulting a mapping table associating a first
3 location indicator with a second location indicator, wherein the first location indicator
4 indicates a prior location of the resource and the second location indicator indicates a
5 present location of the resource.

1 21. The method of claim 20, wherein the first and second location indicators
2 are uniform resource locators (URLs).

1 22. An apparatus for correcting a link in a document, comprising:
2 a document repository having stored therein one or more documents;
3 a mapping table unit having stored therein mapping table information associating
4 a first prior resource-locator with a first present resource-locator, the first prior resource-
5 locator indicating a prior location of a first resource within the document repository and
6 the first present resource-locator indicating a present location of the first resource; and
7 a link checking service unit connected to the document repository and the
8 mapping table unit, and configured to locate an entry in the mapping table information
9 based on a requested resource-locator contained in a request for information concerning
10 location of the first resource, to identify the first present resource-locator stored in
11 association with the first prior resource-locator, and to send a response message
12 containing the first present resource-locator.

1 23. The apparatus of claim 22, wherein the first prior and first present
2 resource-locators are uniform resource locators (URLs).

1 24. The apparatus of claim 22, wherein the mapping table further includes a
2 second prior resource-locator indicating a location of a second resource and a status code
3 indicating a status of the second prior resource-locator.

1 25. The apparatus of claim 24, wherein the status code indicates that the
2 second resource corresponding to the second prior resource-locator has been deleted.

1 26. The apparatus of claim 24, wherein the status code indicates that the

2 second prior resource-locator indicates a present location of the second resource in the

3 document repository.

1 27. The apparatus of claim 22, wherein the apparatus is part of a web server.

1 28. An apparatus for determining a status of a link in a document, comprising:

2 means for storing one or more resources;

3 means for receiving a request to determine the status of the link in the document,

4 wherein the link includes a location indicator of a resource;

5 means for detecting if the resource is present within said means for storing at a

6 location indicated by the location indicator;

7 means for determining if the resource is present at an alternate location if the

8 resource is not detected in the location indicated by the location indicator; and

9 means for returning an alternate location identifier indicating the alternate

10 location of the resource if the resource is determined to be present at the alternate

11 location.

1 29. A computer readable medium of instructions suitable for execution on a

2 computer for determining a status of a link in a document, comprising:

3 program instructions for receiving a request to determine the status of the link in the

4 document, wherein the link includes a location indicator of a resource;

5 program instructions for detecting if the resource is present within a storage unit at a

6 location indicated by the location indicator;

7 program instructions for determining if the resource is present at an alternate location
8 if the resource is not detected in the location indicated by the location indicator; and
9 program instructions for returning an alternate location identifier indicating the
10 alternate location of the resource if the resource is determined to be present at the alternate
11 location.